

WHAT IS CLAIMED IS:

1. An endpoint device for controlling the delivery of streaming media, comprising:

a communication network interface operable to receive streaming media from a network device at a first delivery rate;

a memory coupled to the communication network interface, the memory operable to store media received through the communication network interface; and

a media rate controller coupled to the memory and the communication network interface, the controller operable to determine an adjustment to the first delivery rate and generate a command for the network device to change the first delivery rate in accordance with the adjustment.

2. The device of Claim 1, wherein the communication network interface is an Ethernet card.

3. The device of Claim 1, wherein the streaming media comprises voice over Internet protocol packets.

4. The device of Claim 1, wherein the media rate controller is further operable to generate a command to reserve an amount of bandwidth in the communication network that is compatible with the adjusted delivery rate.

5. The device of Claim 1, wherein the adjustment to the first delivery rate specifies a new rate for the delivery of the streaming media.

6. The device of Claim 1, wherein the media rate controller is further operable to determine whether to adjust the first delivery rate based on the status of the media in the memory.

7. The device of Claim 6, wherein the media rate controller generates a command for an increase in the first delivery rate when the amount of media in the memory is below a threshold.

5 8. The device of Claim 6, wherein the media rate controller generates a command for a decrease in the first delivery rate when the amount of media in the memory is above a threshold.

9. The device of Claim 1, further comprising:
10 an output device interface coupled to the memory, the output device interface operable to receive the media and transform it into signals appropriate for output; and
an output device coupled to the output device interface, the output device operable to receive the signals from the output device interface and generate output based on them.

15 10. The device of Claim 9, further comprising an input device coupled to the media rate controller, the input device operable to detect a command to adjust the rate at which the media is being output by the output device, wherein the media rate controller is further operable to, based on the command, generate a command to
20 adjust the rate at which the media is currently being delivered.

11. The device of Claim 10, wherein the input device comprises one of a button, a speech recognition device, a graphical user interface, and a mouse.

25 12. The device of Claim 9, wherein the output device comprises one of a speaker and a video terminal.

13. The device of Claim 1, wherein the media rate controller is operable to determine whether the first delivery rate may be adjusted and to operate at only the
30 first delivery rate if the first delivery rate may not be adjusted.

14. An endpoint device for controlling the delivery of streaming media, comprising:

a network interface card operable to receive audio media at different delivery rates;

5 a random access memory coupled to the network interface card, the memory containing a buffer operable to store audio media received through the network interface card;

10 a digital signal processor coupled to the memory, the digital signal processor operable to process the media in the buffer based on the rate at which output is being generated based on the media;

15 a media rate controller coupled to the memory, the controller operable to monitor the status of the audio media in the buffer, to determine an adjustment to the current rate at which the audio media is being delivered based on the status of the audio media in the buffer, and to generate a command indicative of the adjustment to the current delivery rate;

a coder/decoder coupled to the memory, the coder/decoder operable to convert the processed audio media into analog signals representative of audible sounds; and

20 a speaker coupled to the coder/decoder, the speaker operable to receive the analog signals and generate audible sounds based on them.

15. A method for controlling the delivery of streaming media at an endpoint device, comprising:
receiving streaming media at an endpoint device at a first delivery rate;
storing the received media;
5 determining whether to adjust the first delivery rate;
determining an adjustment to the first delivery rate if an adjustment is desired;
and
generating a command for a network device to change the first delivery rate in accordance with the adjustment.

16. The method of Claim 15, wherein the media comprises voice over Internet protocol packets.

17. The method of Claim 15, further comprising generating a command to reserve an amount of bandwidth in a communication network that is compatible with the adjusted delivery rate.

18. The method of Claim 15, further comprising examining the status of the media being stored to determine whether to adjust the first delivery rate.

19. The method of Claim 18, wherein the adjusted delivery rate is greater than the first delivery rate if the amount of media being stored is below a threshold.

20. The method of Claim 18, wherein the adjusted delivery rate is less than the first delivery rate if the amount of media being stored is above a threshold.

21. The method of Claim 15, further comprising:
converting the received media into a form appropriate for output; and
generating output based on the converted media.

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24. A set of logic encoded in media for controlling the delivery of streaming media, the logic operable to perform the following operations:
detect the reception of streaming media at a first delivery rate;
instruct a memory to store the received media;
5 determine whether to adjust the first delivery rate;
determine an adjustment to the first delivery rate if an adjustment is desired;
and
generate a command for a network device to change the first delivery rate in accordance with the adjustment.

25. The logic of Claim 24, wherein the media comprises voice over Internet protocol packets.

26. The logic of Claim 24, wherein the media represents audible sounds.

27. The logic of Claim 24, wherein the logic is further operable to generate a command to reserve an amount of bandwidth in a communication network that is compatible with the adjusted delivery rate.

28. The logic of Claim 24, wherein the logic is further operable to examine the status of the media being stored to determine whether to adjust the first delivery rate.

29. The logic of Claim 28, wherein the adjusted delivery rate is greater than the first delivery rate if the amount of media being stored is below a threshold.

30. The logic of Claim 28, wherein the adjusted delivery rate is less than the first delivery rate if the amount of media being stored is above a threshold.

31. The logic of Claim 24, wherein the logic is further operable to:
convert the received media into a form appropriate for output; and
facilitate the generation of output based on the converted media.

5 32. The logic of Claim 31, wherein the output comprises audible sound or
video graphics.

33. The logic of Claim 24, wherein the logic is further operable to:
detect a command to adjust the rate at which output is being generated based
10 on the media;
determine, based on the command, an adjustment to the rate at which media is
currently being delivered; and
generate a command for the network device to adjust the current delivery rate
in accordance with the adjustment.

15 34. The logic of Claim 24, wherein the logic is embedded in software.

35. An endpoint device for controlling the delivery of streaming media,
comprising:

means for receiving streaming media at an endpoint device at a first delivery
rate;

5 means for storing the received media;

means for determining whether to adjust the first delivery rate and an
adjustment to the first delivery rate if an adjustment is desired; and

means for generating a command for a network device to change the first
delivery rate in accordance with the adjustment.

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36. The device of Claim 35, wherein the media comprises voice over
Internet protocol packets.

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37. The device of Claim 35, further comprising means for generating a
command to reserve an amount of bandwidth in a communication network that is
compatible with the adjusted delivery rate.

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38. The device of Claim 35, further comprising means for examining the
status of the media being stored to determine whether to adjust the first delivery rate.

39. The device of Claim 38, wherein the adjusted delivery rate is greater
than the first delivery rate if the amount of media being stored is below a threshold.

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40. The device of Claim 38, wherein the adjusted delivery rate is less than
the first delivery rate if the amount of media being stored is above a threshold.

41. The device of Claim 35, further comprising:
means for converting the received media into a form appropriate for output;
and

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means for generating output based on the converted media.

42. The device of Claim 41, wherein the output comprises audible sound or video graphics.

43. The device of Claim 41, further comprising:

5 means for detecting a command to adjust the rate at which output is being generated based on the media;

means for determining an adjustment to the rate at which media is currently being delivered based on the command; and

10 means for generating a command for the network device to adjust the current rate in accordance with the adjustment.

44. A system for delivering streaming media, comprising:

a communication network interface operable to send streaming media to a communication network;

5 a memory coupled to the communication network interface, the memory including at least one file containing media; and

a delivery controller coupled to the memory and the communication network interface, the delivery controller operable to detect a command to send the media from the file through the communication network interface to an endpoint device, retrieve the media from the file and format it into packets, and stream the packets through the communication network interface at a determined rate.

45. The system of Claim 44, wherein the communication network interface is an Ethernet card.

15 46. The system of Claim 44, wherein the packets comprise voice over Internet protocol packets.

47. The system of Claim 44, wherein the media represents audible sounds or video graphics.

20 48. The system of Claim 44, wherein the delivery controller is further operable to stream subsequent media in the file through the communication network interface at an adjusted rate based on a command to adjust the rate.

25 49. The system of Claim 48, wherein the adjusted rate is less than the previous rate.

30 50. The system of Claim 48, wherein the controller streams subsequent media in the file through the communication network interface at the adjusted rate by adjusting the amount of media in each packet or adjusting the rate at which the packets are sent.

51. A method for delivering streaming media, comprising:
storing at least one file containing media;
detecting a command to send the media in the file to an endpoint device;
retrieving the media from the file and formatting it into packets; and
5 streaming the packets to the endpoint device at a determined rate.

52. The method of Claim 51, wherein the packets comprise voice over
Internet protocol packets.

10 53. The method of Claim 51, wherein the media represents audible sounds
or video graphics.

54. The method of Claim 51, further comprising:
detecting a command to adjust the rate at which the media is being streamed;
15 and
streaming the subsequent media in the file at the adjusted rate.

55. The method of Claim 54, wherein the adjusted rate is less than the
previous rate.

20 56. The method of Claim 54, wherein streaming the subsequent media at
the adjusted rate comprises adjusting the amount of media in each packet or adjusting
the rate at which the packets are streamed.

25 57. The method of Claim 51, wherein the determined rate comprises a rate
determined by the endpoint device.

58. A system for delivering electronic media, comprising:

a communication network;

a media output device coupled to the communication network, the media output device operable to receive media from the communication network at a first delivery rate and generate output based on the media, the media output device further operable to determine an adjustment to the first delivery rate and generate a command to deliver media in accordance with the adjustment; and

a media delivery system coupled to the communication network, the media delivery system operable to stream media destined for the media output device to the communication network at the first delivery rate, the media delivery system further operable to detect the command to adjust the first delivery rate and stream subsequent media destined for the media output device to the communication network at the adjusted delivery rate.

59. The system of Claim 58, wherein the media represents audible sounds or video graphics.

60. The system of Claim 58, wherein the media output device comprises a telephone.

61. The system of Claim 58, wherein the media output device determines the adjustment to the first delivery rate in response to receiving a command regarding the rate at which output is to be generated based on the media.

62. The system of Claim 58, wherein the adjustment indicates an increase of the first delivery rate.

63. The system of Claim 58, wherein the media output device generates the command to adjust the rate at which the media is currently being delivered based on the status of the media in a buffer.

64. The system of Claim 58, wherein the media output device is further operable to generate a command to reserve an amount of bandwidth in the communication network that is compatible with the adjusted delivery rate.

5 65. The system of Claim 58, wherein the media is streamed in the form of voice over Internet protocol packets.

10 66. The system of Claim 65, wherein the media delivery system adjusts the rate at which packets containing media are being streamed to the communication network to stream subsequent media to the communication network at the adjusted delivery rate.